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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/764,218

01/23/2004

Douglas Durham

15436.162.1

9129

22913

7590

06/18/2009

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EXAMINER

SEYE, ABDOU K

ART UNIT

PAPER NUMBER

2194

MAIL DATE

DELIVERY MODE

06/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/764,218	Applicant(s) DURHAM ET AL.	
	Examiner Abdou Karim Seye	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09/11/2008 and 01/23/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 9, 2009 has been entered.

2. Claims 1-26 are pending in this application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103 (a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 9-26, are rejected under 35 U.S.C. 103 (a) as unpatentable over Anderson et al. (US 5850388) in view of Vaglica et al (US 6125404), and further in view of Hrischuk et al. (USPGPUB 2002/0194393).

5. As to claim 15, Anderson teaches the invention substantially as claimed including a method for processing data events associated with a multi-protocol communications system (abstract; FIG. 20), the method being suitable for use in connection with a multi-link protocol analyzer (col. 3, lines 2-15) and comprising:

capturing first data events (col. 4, lines 50-52; wherein time event is the data capture; FIG. 2; FIG. 21) at a first link analyzer (col. 4, line 50; wherein the protocol analyzer is the link analyzer; 304, FIG. 3; col. 9, lines 15-20), the first link analyzer being disposed in an in-line arrangement with respect to a first data stream (col. 4, lines 59-63; wherein the data packets includes data stream; FIG. 3; col. 9, lines 15-18) corresponding to a first communication protocol (col. 4, lines 60-62; 703, FIG.1; col. 17, lines 5-7);

capturing second data events (FIG. 21; wherein the event field include a second captured data events) at a second link analyzer (col. 3; lines 7-16; wherein LAN and WAN network are known to include a second link analyzer), the second link analyzer being disposed in an in-line arrangement with respect to a second data stream (col.6, lines 1-20) corresponding to a second communication protocol (708B,FIG. 7; col. 17, lines 10-13; wherein other/next protocol is the second communication protocol) that is different from the first communication protocol (col. 17, lines 1-23);

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sorting at least some of the captured first and second data events (col. 4, lines 64-67; col. 30, lines 20-24);

Filling a display with at least some of sorted data event (col 4, lines 65-67; col. 5, lines 1-10) and

displaying at least some of the sorted data events by way of a graphical user interface (FIG. 18; col. 4, lines 65-67; col. 5, lines 1-17; col. 30, lines 20-25) .

6. Anderson does not explicitly teach timestamping each of the captured first and second data events in association with a clock, and a temporal relationship between at least two of the displayed data events is apparent from the display.

7. Vaglica teaches timestamping first and second data events (col. 2, lines 3-4; FIG. 4; wherein "event 1.....event N" include first and second event) in association with a reference time / clock (18, FIG. 1; col. 4, lines 27-52).

8. Hrischuk teaches a temporal relationship between data events (paragraph 202 ; 211).

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9. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Anderson, Vaglica and Hrischuk , because the timestamping of first and second data events with a reference time/ clock of Vaglica and providing temporal relationship between data event of Hrischuk will improve the efficiency of Anderson's system by allowing sorting of the data events according to the respective clock timestamps associated with each of the first and second captured data events in order to increase control of timing of events, software errors and reducing interrupt latencies.

10. As to claims 9 and 21, they are rejected for the same reasons as claim 15 above.

11. As to claims 10, 16 and 22, Anderson teaches, wherein the displayed data events represent at least two different communication protocols selected from the group consisting of: Infiniband; Gigabit Ethernet; SONET; Fibre Channel; and, PCI Express (col. 2, lines 10-13; col. 1, lines 34-38).

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12. As to claims 11, 17 and 23, Vaglica teaches, wherein the clock timestamp is based upon one of: a reference clock; and, a protocol clock (18, FIG. 1; FIG. 2); .

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13. As to claims 12, 18 and 24, Hrischuk teaches, wherein the temporal relationship comprises comprise at least one of the following: a first data event preceded a second data event; a first data event followed a second data event; a first data event overlapped a second data event ; and, a first data event and second data event commenced simultaneously and also concluded simultaneously (paragraph 211, 247).

14. As to claims 13, 19 and 25, Hrischuk teaches, determining whether a causal relationship exists between at least two displayed data events based upon the temporal relation between the at least two displayed data events (paragraph 289)

15. As to claims 14, 20 and 26, Anderson teaches, wherein the displayed information includes at least one of: a data event start time; a data event stop time; a data event delta time; a data event type; an analyzer port in connection with which a data event was captured; a timestamp value; and, a protocol type (FIG. 21).

16. Claims 1-4 and 8 , are rejected under 35 U.S.C. 103 (a) as unpatentable over Anderson et al. (US 5850388) in view of Vaglica et al (US 6125404).

17. As to claim 1, Anderson teaches the invention substantially as claimed including a method for processing data events captured in a multi-protocol communications system (abstract; FIG. 20), the method comprising:

capturing first data events (col. 4, lines 50-52; wherein time event is the data

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capture; FIG. 2; FIG. 21) at a first link analyzer (col. 4, line 50; wherein the protocol analyzer is the link analyzer; 304, FIG. 3; col. 9, lines 15-20), the first link analyzer being disposed in an in-line arrangement with respect to a first data stream (col. 4, lines 59-63; wherein the data packets includes data stream; FIG. 3; col. 9, lines 15-18) corresponding to a first communication protocol (col. 4, lines 60-62; 703, FIG.1; col. 17, lines 5-7);

capturing second data events (FIG. 21; wherein the event field include a second captured data events) at a second link analyzer (col. 3; lines 7-16; wherein LAN and WAN network are known to include a second link analyzer), the second link analyzer being disposed in an in-line arrangement with respect to a second data stream (col.6, lines 1-20) corresponding to a second communication protocol (708B,FIG. 7; col. 17, lines 10-13; wherein other/next protocol is the second communication protocol) that is different from the first communication protocol (col. 17, lines 1-23);

accessing the captured first and second data events (col. 5, lines 1-17);

sorting at least some of the captured first and second data events (col. 30, lines 20-24); and

displaying at least some of the sorted data events by way of a graphical user interface (FIG. 18; col. 4, lines 65-67; col. 5, lines 1-17; col. 30, lines 20-24) .

18. Anderson does not explicitly teach that each of the captured first and second data events having an associated clock timestamp.

19. Vaglica teaches timestamping first and second data events (col. 2, lines 3-4; FIG. 4; wherein "event 1.....event N" include first and second event) in association with a reference time / clock (18, FIG. 1; col. 4, lines 27-52).

20. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Anderson's invention with Vaglica's to include timestamping of the first and second data events with a reference time/ clock, because it will improve the efficiency of Anderson's system by allowing sorting of the data events according to the respective clock timestamps associated with each of the first and second captured data events in order to increase control of timing of events, software errors and reducing interrupt latencies.

21. As to claim 2, Anderson teaches, wherein the displayed data events represent at least the first and second communication protocols (FIG. 5; col. 9, lines 15-30).

22. As to claim 3, it is rejected for the same reasons as claim 10 above.

23. As to claim 4, it is rejected for the same reasons as claim 11 above.

24. As to claim 8, it is rejected for the same reasons as claim 14 above.

25. Claims 5-7 are rejected under 35 U.S.C. 103 (a) as unpatentable over Anderson et al. (US 5850388) in view of Vaglica et al (US 6125404), and further in view of Hrischuk et al. (USPGPUB 2002/0194393).

26. As to claim 5, Anderson and Vaglica failed to teach wherein a temporal relationship between at least two of the displayed data events is apparent from the display. Hrischuk teaches a temporal relationship between data events (paragraph 202 ; 211).It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Anderson, Vaglica and Hrischuk , because providing temporal relationship between data events of Hrischuk will improve the efficiency of Anderson's system by providing information sufficient for determining scenario causality from a distributed application's execution history in order to increase models/systems performance .

27. As to claim 6, it is rejected for the same reasons as claim 12 above.

28. As to claim 7, it is rejected for the same reasons as claim 13 above.

Response to Arguments

29. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdou Karim Seye whose telephone number is 571-270-1062. The examiner can normally be reached on Monday - Friday 8:30 - 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on 5712726799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Hyung S. SOUGH/
Supervisory Patent Examiner, Art Unit 2194
06/16/09

/Abdou Karim Seye/
Examiner, Art Unit 2194